

### **REMARKS**

In the Office Action, the Examiner rejected claims 1-10 and 12-21. The Examiner also allowed claims 22-26. Applicants canceled claim 11 in a previous communication. Applicants thank the Examiner for the recognition of allowable subject matter in the present claims. However, for the reasons set forth below, Applicants respectfully submit that all of pending claims 1-10 and 12-26 are allowable in their present form. Applicants respectfully request reconsideration of the above-referenced application in view of the following remarks.

#### **Objection to the Specification**

In the Office Action, the Examiner objected to the specification due to a perceived informality. Particularly, the Examiner suggested that the specification does not provide antecedent basis for the "single-stage" rotating seal recited in various claims. Applicants respectfully note that a number of the present figures, including FIGS. 3 and 5, clearly illustrate a single-stage rotating seal formed by the cover 24 and the flinger 26, and that the specification describes the structure of the cover and the flinger in such detail that one skilled in the art would immediately appreciate the single-stage nature of the seal. However, although Applicants do not necessarily agree with the Examiner's objection, in the interest of advancing prosecution and to allay the concern expressed by the Examiner, Applicants amended the specification as set forth above. In view of this amendment, Applicants believe the Examiner's objection is moot. Accordingly, Applicants respectfully request withdrawal of the objection to the specification.

#### **Rejections Under 35 U.S.C. § 102**

In the Office Action, the Examiner rejected claims 1-4, 7, 12-17, and 21 under 35 U.S.C. § 102(b) as anticipated by Grzina (U.S. Patent No. 4,895,460). Applicants respectfully traverse this rejection.

***Legal Precedent***

Anticipation under Section 102 can be found only if a single reference shows exactly what is claimed. *Titanium Metals Corp. v. Banner*, 227 U.S.P.Q. 773 (Fed. Cir. 1985). For a prior art reference to anticipate under Section 102, every element of the claimed invention must be identically shown in a single reference. *In re Bond*, 15 U.S.P.Q.2d 1566 (Fed. Cir. 1990). Moreover, the prior art reference also must show the *identical* invention “*in as complete detail as contained in the ... claim*” to support a *prima facie* case of anticipation. *Richardson v. Suzuki Motor Co.*, 9 U.S.P.Q. 2d 1913, 1920 (Fed. Cir. 1989) (emphasis added). Accordingly, Applicants need only point to a single element not found in the cited reference to demonstrate that the cited reference fails to anticipate the claimed subject matter.

***Omitted Features of Independent Claims 1 and 13***

Turning now to the present claims, the Grzina reference fails to disclose each element of independent claims 1 and 13. For instance, independent claim 1 recites “a rotatable flinger secured to the cover ... and configured to form a *single-stage rotating seal*” (emphasis added). Similarly, independent claim 13 recites “a rotatable member securable to the cover ... [and] configured to form a *single-stage rotating seal*” (emphasis added). Because the Grzina reference fails to disclose such elements, the cited reference fails to anticipate independent claims 1 and 13.

The Grzina reference is directed to an improved seal for bearing assemblies. Col. 1, lines 4-5. The Grzina apparatus includes an end cover 6 secured to a bearing housing 9. Col. 1, lines 43-55. The bearing housing 9 is configured to receive a shaft 7 and bearings 8. *Id.* Further, a shaft collar is attached to shaft 7 and cooperates with seal rings 1A and 1B to form two inner seal elements, while further cooperating with the cover 6 to form a third, outer seal element that is denoted labyrinth seal 3. Col. 2, lines 16-20. These seals control the egress of grease, inserted via passageway 10, from the Grzina apparatus. Col. 2, lines 26-38; *see* FIG. 2. It is important to note that the shaft collar of

the cited reference forms both inner *and* outer seal stages. In other words, the shaft collar is configured to form a *multi-stage* seal assembly.

In the Office Action, the Examiner equates labyrinth passage 3, formed between the shaft collar (not numbered) and the cover 6, to the rotating flinger or member of the present claims. Applicants respectfully note that a labyrinth cannot be reasonably compared to a rotating member or flinger. Indeed, the reference makes clear that labyrinth 3 is one stage of the multi-stage seal assembly comprising the shaft collar, the cover 6, and seal rings 1. Col. 2, lines 16-25. In the interest of advancing prosecution of this case, Applicants have assumed that the Examiner intended to equate the shaft collar of the Grzina reference to the rotating flinger or member of the present claims. If the Examiner intended otherwise, Applicants respectfully request that the Examiner clarify and correct the rejection and supporting rationale such that Applicants may fairly address the intended rejection.

Applicants also respectfully note that the present rejection fails to address every element of independent claim 13. Particularly, the rejection pertaining to claim 13 fails to suggest that the Grzina reference discloses a “rotatable member being configured to form a single-stage rotating seal” as recited in independent claim 13. Should the Examiner, even upon reconsideration, believe that a rejection is still appropriate, Applicants respectfully request clarification of the rejection such that the rejection addresses each and every element of independent claim 13.

As discussed both in the Grzina reference and the above summary, Grzina teaches that the shaft collar and cover 6 are configured to form a *multi-stage* seal assembly. Particularly, the cited reference teaches two inner stages defined by seal rings 1A and 1B, and one outer stage corresponding to labyrinth 3. However, unlike the shaft collar of Grzina, independent claims 1 and 13, as amended, each clearly recite that the rotating flinger or member is configured to form a *single-stage* rotating seal. *See* Application,

FIG. 3. As the shaft collar taught by Grzina is clearly configured to form a multi-stage seal, Applicants respectfully submit that this shaft collar cannot be reasonably considered to be a rotatable flinger or member “configured to form a single-stage rotating seal,” as recited by the instant claims. Further, the Grzina reference does not contain any other structure that can be reasonably equated with this recited element. Consequently, Applicants respectfully submit that the Grzina reference cannot anticipate independent claims 1 and 13.

For at least these reasons, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 102 and allowance of claims 1-4, 7, 12-17, and 21.

#### **Rejections Under 35 U.S.C. § 103**

In the Office Action, the Examiner rejected claims 1-4, 7, 12-17, and 21 under 35 U.S.C. § 103(a) as unpatentable over Grzina in view of Hatch et al. (U.S. Patent No. 4,943,068). The Examiner also rejected claim 6 as unpatentable over Grzina in view of Tripathy (U.S. Patent No. 6,149,158), claims 8 and 19-21 as unpatentable over Grzina in view of Motsch (U.S. Patent No. 4,368,933), claims 9 and 10 as unpatentable over Grzina in view of Tooley (U.S. Patent No. 4,348,067), and claims 5 and 18 as unpatentable over Grzina in view of Uhen (U.S. Patent No. 4,781,476). Applicants respectfully traverse these rejections.

#### ***Legal Precedent***

The burden of establishing a *prima facie* case of obviousness falls on the Examiner. *Ex parte Wolters and Kuypers*, 214 U.S.P.Q. 735 (PTO Bd. App. 1979). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Accordingly, to establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a

convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

***Omitted Features of Independent Claims 1 and 13***

While Applicants appreciate the thoughtfulness reflected by the Examiner's use of alternative arguments with respect to the teachings of the Grzina reference and the present claims, Applicants respectfully note that the Grzina and Hatch et al. references collectively fail to disclose each element of independent claims 1 and 13. Particularly, as noted above, the Grzina reference teaches a *multi-stage* seal assembly and fails to teach a rotatable flinger or member configured to form a *single-stage* rotating seal, as generally recited in independent claims 1 and 13. However, as discussed below, the Hatch et al. reference also teaches a multi-stage seal and does not obviate the clear deficiencies of the Grzina reference. Because the Hatch et al. and Grzina references fail to disclose each and every element of the present claims, the cited references cannot support a *prima facie* case of obviousness with respect to independent claims 1 and 13.

In the Office Action, the Examiner acknowledges that the Grzina reference fails to teach a flinger configured to form a single-stage rotating seal. *See* Final Office Action mailed October 13, 2005, page 6. To overcome this deficiency, the Examiner relied upon the Hatch et al. reference, stating: "Hatch et al. teach wherein a rotating seal is a single stage. (Figures 2-7)." *Id.* This assertion is erroneous.

The Hatch et al. reference teaches a seal and filter arrangement for a rotating shaft. *See* Hatch et al., col. 1, lines 9-14. Notably, the reference discloses a seal 9 mounted over a shaft 7. *Id.* at col. 4, lines 7-10. The seal 9 includes an annular case member 13, which has a radial flange 19, and an annular shaft engaging member 15. *Id.* at col. 4, lines 10-32; *see* FIG. 2. The shaft engaging member 15 includes a channel 17 and a radially projecting lip element 25 having an end portion 27 and tip 29. *Id.* at col. 4, lines 26-66;

*see* FIG. 3. Importantly, the end of flange 19 cooperates with the channel 17 of shaft engaging member 15 to form a first seal stage, while end portion 27 of the member 15 cooperates with a contact surface of flange 19 to form a second seal stage. *See* FIGS. 2-7. In other words, the shaft engaging member 15 and flange 19 form a *two-stage* seal.

Each of FIGS. 2-7 includes this two-stage seal, while various other cooperating elements are interspersed throughout these figures. With particular regard to FIG. 7, this figure illustrates a filter element 45 and the two-stage seal formed by the shaft engaging member 15 and the flange 19. *See* FIG. 7. Applicants respectfully note that the text of the cited reference associated with FIG. 7 explicitly refers to this seal as a “two-stage seal,” and that this two-stage seal may be used with or without filter 45 or an additional seal 35. *Id.* at col. 6, lines 60-62. Because one skilled in the art would recognize the seal formed between member 15 and flange 19 to be a multi-stage seal, and because the cited reference explicitly refers to this seal as a “two-stage seal,” this seal cannot be logically equated with the “single-stage rotating seal” recited by independent claims 1 and 13. Thus, keeping in mind the previous deficiencies of the Grzina reference discussed above, it is apparent that the Grzina and Hatch et al. references fail to teach or suggest every element of the present claims. Consequently, these references cannot support a *prima facie* case of obviousness with respect to independent claims 1 and 13. Accordingly, Applicants respectfully request withdrawal of the present rejections and allowance of independent claims 1 and 13, as well as their dependent claims.

#### ***Rejection of Dependent Claims***

Applicants note that each of claims 5, 6, 8-10, and 18-21 depends from one of independent claims 1 and 13. As discussed above, the Tripathy, Motsch, Tooley, and Uhen references fail to disclose each element of independent claims 1 and 13. Further, the Tripathy, Motsch, Tooley, and Uhen references do nothing to obviate the deficiencies of the Grzina and Hatch et al. references. As a result, dependent claims 5, 6, 8-10, and 18-21 are allowable on the basis of their dependency from a respective allowable

independent claim, as well as for the subject matter separately recited in these dependent claims. Accordingly, Applicants respectfully request withdrawal of the Examiner's rejections and allowance of claims 5, 6, 8-10, and 18-21.

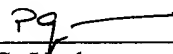
For these reasons, among others, Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 103 and allowance of claims 1-10 and 12-21.

**Conclusion**

In view of the remarks set forth above, Applicants respectfully request allowance of the pending claims. If the Examiner believes that a telephonic interview will help speed this application toward issuance, the Examiner is invited to contact the undersigned at the telephone number listed below.

Respectfully submitted,

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